REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-3, 5-7, 9-20, 22, 23, 33-35, 37-39, 41-52, 54, 55, 67-85 are pending in the present application. Claims 1, 5-7, 11, 13, 33, 37-39 and 43-45 are amended, Claims 4, 8, 21, 24-32, 36, 40, 53, and 56-66 are cancelled, and Claims 67-85 are added in the present amendment.

The amendments to the claims and the new claims find support in Applicant's originally filed claims. Thus, no new matter is added.

In the outstanding Office Action, Claims 1-8, 15-20, 22, 33-40, 47-52, and 54 are rejected under 35 U.S.C. §102(e) as unpatentable over Foulger et al. (U.S. Pat. Pub. No. 2003/0018769, herein "Foulger"); Claims 9-14, 41-46 are rejected under 35 U.S.C. 103(a) as unpatentable over Foulger in view of Feinberg et al. (U.S. Pat. No. 6,798,745, herein "Feinberg"); and Claims 24-32, 56-64 and 66 are indicated as containing allowable subject matter.

Initially, Applicants acknowledge with appreciation the indication of allowable subject matter.

Claims 24-32, 56-64 and 66 are cancelled and the allowable features disclosed therein are incorporated into amended independent Claims 11, 13, 44 and new independent claims 67, 76 and 85. Therefore, it is respectfully submitted that independent Claims 11, 13, 44, 67, 76 and 85, and claims depending therefrom, are in condition for allowance.

Further, independent Claims 1 and 33 are amended to overcome the present rejection by incorporating the subject matter of cancelled Claim 8.

Briefly recapitulating, amended Claim 1 is directed to a computer program product that comprises computer-executable instructions for causing a computer to, a) obtain

performance data related to performance of a broadband network, b) provide a hierarchical display of network performance, c) provide an indication of a likely network problem and d) suggest action for addressing the likely network problem. Amended Claim 33 is directed to a method substantially corresponding to the computer program of Claim 1.

Foulger describes a method of back-tracing network performance by locating a QOS monitor at a web site that monitors traffic.[1] Further, Foulger describes that a web monitor captures data from a monitored web site, sniffed IP addresses are time-stamped and a comparison of newly captured addresses and stored addresses is used to perform "smart testing."[2] Thus, Foulger describes a web monitor application that captures IP addresses of addresses of visitors to a web site, and tests those addresses.

Additionally, Foulger describes that all new IP addresses will have a traceroute and DNS lookup performed on them and all the data from the capture, the traceroute, and the DNS lookup will be stored in a database.[3]

However, contrary to the outstanding Office Action,[4] paragraphs 0097 and 0098 of Foulger do not describe or suggest "causing the computer to provide an indication of a likely network problem, and a suggested action for addressing the likely network problem," as is recited in claim 1.

In other words, Foulger describes capturing network data in the form of IP addresses and comparing the captured addresses to stored addresses. Further, Foulger describes performing traceroute and DNS lookup. However, Foulger does not describe indicating a likely network problem and suggesting action for addressing the likely network problem.

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[1] Foulger, abstract.
[2] Foulger, paragraph 0097.
[3] Foulger, paragraph 0098.
[4] outstanding Office Action, page 4, line 18-22 to page 5, line 2.

Therefore, as Foulger does not describe or suggest all of the limitations described in Claims 1 and 33, Applicant respectfully submits that Claims 1 and 33 and claims depending therefrom patentably distinguish over Foulger.

Feinberg describes a QOS provision for voice and other delay sensitive call connections established over the internet.[5] Further, Feinberg describes that when the defined QOS event is packet loss, a QOS parameter value is produced by summing the total number of lost packets in a one second period. The applicable QOS acceptance value range (AVR) field 214 maintained in the data storage device 204 is dipped to obtain the QOS acceptance value (308). The QOS parameter value is compared to the QOS acceptance value (310). If the QOS parameter value is within the acceptable range then no corrective action is taken.[6]

Thus, Feinberg describes corrective action when a parameter is out of range. However, Feinberg does not describe or suggest "causing the computer to provide an indication of a likely network problem, and a suggested action for addressing the likely network problem," as is recited in claim 1.

Therefore, as Feinberg does not describe or suggest all of the limitations described in Claims 1 and 33, Applicant respectfully submits that Claims 1 and 33 and claims depending therefrom patentably distinguish over Feinberg.

Additionally, dependent Claims 7 and 39 recite, *inter alia*, sorting according to at least one selected criterion. The outstanding Office Action cites Foulger paragraph 0078 as describing "instructions for causing the computer to sort the more detail according to at least one selected criterion," as is recited in Claims 7 and 39.

Foulger paragraph 0078 recites, *inter alia*, that "the latency distribution view supports drill down from the vertical bars of the histogram to a list of the routers represented by that vertical bar sorted by latency." Additionally, this drill down groups the routers based on their

[5] Feinberg, abstract.
[6] Feinberg, Col. 5, lines 49-64.

current performance. However, Foulger does not describe or suggest sorting performance issue details according to at least one *selected* criterion. Nor does Foulger describe sorting locations of network elements or metrics associated with the network elements by one or more selected criterion. Thus, although Foulger describes grouping routers based on their current performance, Foulger does not describe or suggest sorting performance issue details of network elements or metrics associated with network elements based on selected criterion.

Accordingly, Foulger does not describe all of the features recited in Claims 7 and 39 and thus dependent Claims 7 and 39 patentably distinguish over Foulger.

Dependent Claims 12 and 44 recite, *inter alia*, weighting metrics differently depending upon perceived relevance of an issue associated with the metric to network performance. The outstanding Office Action cites Feinberg, Column 5, lines 40-49 as describing the claimed aspects of Claims 12 and 44. However, Feinberg, Column 5, lines 40-49 recites, *inter alia*, that "it would be understood by those skilled in the art that the number of combinations and permutations for processing or shaping the raw data which comprises the QOS events to obtain QOS parameter values is nearly unlimited, and is merely a matter of design choice and system capabilities." Thus, Feinberg, Column 5, lines 40-49 is merely a general statement that the number of combinations and permutations for processing or shaping the raw data which comprises the QOS events to obtain QOS parameter values is nearly unlimited. This is insufficient to anticipate the specific processing of weighting different metrics differently dependent upon perceived relevance of an issue associated with the metric to network performance.

Furthermore, only specific example provided by Feinberg teaches a QOS parameter value produced by summing the total number of lost packets in a one second period. This example of Feinberg does not describe or suggest the specific processing of weighting different metrics differently dependent upon perceived relevance of an issue associated with

the metric to network performance. Instead, Feinberg merely makes a general assertion that there are many ways to manipulate raw QOS data giving only one specific example which describes summing the total number of lost packets. However, the only specific example given does not describe the features recited in Claims 12 and 44.

For each of the two preceding reasons, Feinberg and Foulger, considered individually or in combination, do not describe all of the features recited in Claims 12 and 44, and thus dependent Claims 12 and 44 patentably distinguish over Feinberg and Foulger.

Further, if by citing to Col 5, lines 40-49 of Feinberg an inherency argument was intended, Applicants respectfully assert that the cited features of Claims 12 and 44 are not inherent. The specific processing of weighting different metrics differently dependent upon perceived relevance of an issue associated with the metric to network performance does not flow from the above noted general statement of Feinberg. Further, the outstanding Office Action fails to show "that the alleged inherent characteristic necessarily flows from the teachings of the applied prior art."[7] Accordingly, the above described feature of Claims 12 and 44 is not inherent.

Additionally, even assuming *arguendo* that Claims 12 and 44 is a species of the genus of Feinberg, it is well established law that the disclosure of a broad genus does not anticipate every species of that genus. See Corning Glass Works v Sumitomo USA, 868 F.2d 1251, 1262 (Fed. Cir. 1989). Accordingly, Feinberg does not read on the features of Claims 12 and 44.

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[7]See MPEP 2112 (emphasis in original) (citation omitted). See also same section stating that "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic," (emphasis in original). See also In re Robertson, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999) ("[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill,'" citing Continental Can Co. v. Monsanto Co., 948 F2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991); and "[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient," Id. at 1269 (citation omitted)).

Dependent Claims 13 and 45 recite, *inter alia*, performing comparisons of first metrics derived from the raw data with thresholds and to provide second metrics based upon the comparisons. The outstanding Office Action cites Feinberg, Column 5, lines 40-60 as describing the claimed aspects of Claims 13 and 45. However, Feinberg, Column 5, lines 40-60 recites, *inter alia*, that "when the defined QOS event is packet loss, a QOS parameter value is produced by summing the total number of lost packets in a one second period. The applicable QOS acceptance value range (AVR) field 214 maintained in the data storage device 204 is dipped to obtain the QOS acceptance value (308). The QOS acceptance value represents the acceptable limits (range or threshold) associated with the specified QOS parameter value. The QOS parameter value is next compared to the QOS acceptance value (310). If the QOS parameter value is within the acceptable range then no corrective action is taken."

However, Feinberg does not describe or suggest performing comparisons of first metrics derived from the raw data with thresholds and providing second metrics based upon the comparisons. Feinberg teaches comparing a parameter with a threshold value, but does not teach providing second metrics based upon the comparison. Accordingly, Feinberg and Foulger, considered individually or in combination, do not describe all of the features recited in Claims 13 and 45, and thus dependent Claims 13 and 45 patentably distinguish over Feinberg and Foulger.

Dependent Claims 14 and 46 recite, *inter alia*, the second metrics provide indicia of grades of degraded performance of portions of the network as a function of time. The outstanding Office Action cites Feinberg, Column 5, lines 45-64 as describing the claimed aspects of Claims 14 and 46. Feinberg, Column 5, lines 45-49 recites, *inter alia*, that "when the QOS event is packet loss, a QOS parameter value is produced by summing the total number of lost packets in a one second period." Feinberg, Column 5, lines 49-64 recites, *inter*

alia, that "the applicable QOS acceptance value range (AVR) field 214 maintained in the data storage device 204 is dipped to obtain the QOS acceptance value (308). The QOS acceptance value represents the acceptable limits, range or threshold, associated with the specified QOS parameter value. The QOS parameter value is next compared to the QOS acceptance value (310). If the QOS parameter value is within the acceptable range then no corrective action is taken."

Thus, Feinberg, Column 5, lines 45-49 teaches producing a QOS parameter by summing values over a period of time and Column 5, lines 49-64 teaches taking no action if the parameter is out of range. However, Feinberg does not describe or suggest providing indicia of grades of degraded performance of portions of the network as a function of time. Accordingly, Feinberg and Foulger, considered individually or in combination, do not describe all of the features recited in Claims 14 and 46, and thus dependent Claims 14 and 46 patentably distinguish over Feinberg and Foulger.

Dependent Claims 23 and 55 recite, *inter alia*, that "the network is a DOCSIS network including cable modems and cable modem termination systems, and the first and second data indicate numbers of cable-modem hours at the grades of degradation." The outstanding Office Action cites Dziekan, Column 1, lines 31-53 as describing the claimed aspects of Claims 23 and 55. Dziekan, Column 1, lines 31-53 recites, *inter alia*,

> Data and voice services are supported by cable modems and communication gateways, respectively, which also require the use of an upstream signal path. The network is provisioned as a bi-directional network by using a fiber optic return signal path from the node to the head-end. The cable modem is a network interface element for providing data services such as Internet access and other related services to the subscriber. A cable modem generally uses standardized communication methods based on Cable Labs' Data Over Cable System Interface Specification (DOCSIS) to access data services through the cable network. Cable modems can be identified by one or more unique addresses including, but not limited to, a Media Access Control (MAC) address or an IP address.

Thus, Dziekan, Column 1, lines 31-53 merely describes cable modems and what they do in a cable network. In contrast, Claims 23 and 55 describe indicating numbers of cable-modem hours at grades of performance degradation. Combining what is taught by Foulger, Feinberg, and Dziekan would result in a cable network including cable modems in which a QOS value is calculated by summing lost packets over time. The combination would not include data indicate numbers of cable-modem hours at grades of performance degradation, because none of the references teach or even suggest such a feature.

Accordingly, Foulger, Feinberg, and Dziekan, considered individually or in combination, do not describe all of the features recited in Claims 23 and 55, and thus dependent Claims 23 and 55 patentably distinguish over Foulger, Feinberg, and Dziekan.

Consequently, in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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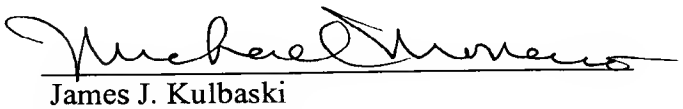

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